EXHIBIT 2

ENVIRONMENTAL PROTECTION AGENCY GUIDELINES FOR THE ASSESSMENT OF CIVIL PENALTIES UNDER SECTION 16 OF THE TOXIC SUBSTANCES CONTROL ACT

(45 FR 59770, effective March 10, 1980)

TSCA Civil Penalty System

Introduction

The Toxic Substances Control Act (TSCA), passed by Congress and signed into law in 1976, provides for increased regulation of chemical substances and mixtures. The Environmental Protection Agency is charged with carrying out and enforcing the requirements of the Act and any rules promulgated under the Act.

Section 16 of the Act provides for civil and criminal penalities for violations of TSCA or TSCA rules. Civil penalty amounts may range up to $25,000 per violation, with each day that a violation continues constituting a separate violation. Civil penalties are to be administratively imposed, after the person is given a written notice and the opportunity to request a hearing. There is a right to review in the United States Courts of Appeals after the penalty has been imposed by the Administrator.

Section 16 of TSCA requires that a number of factors be considered in assessing a civil penalty, as follows:

> In determining the amount of a civil penalty, the Administrator shall take into account the nature, circumstances, extent, and gravity of the violation or violations and, with respect to the violator, ability to pay, effect on ability to continue to do business, and history of prior such violations, the degree of culpability, and such other matters as justice may require.

The purpose of the general penalty system is to assure that TSCA civil penalties be assessed in a fair, uniform and consistent manner; that the penalties are appropriate for the violation committed; that economic incentives for violating TSCA are eliminated; and that persons will be deterred from committing TSCA violations.

Scope of the Civil Penalty System

The penalty system described in this document provides the general framework for civil penalty assessment under TSCA. It establishes standardized definitions and applications of factors the Act requires the Administrator to consider in assessing a penalty. As regulations are developed, specific penalty guidelines will be developed adopting in detail the application of the general penalty system to the new regulation. These specific guidelines will generally be issued when enforcement strategies are issued for each new regulation.

Note.—This document does not discuss whether assessment of a civil penalty is the correct enforcement response to a given violative condition. Rather, this document focuses on determining what the proper civil penalty should be if a decision has been made that a civil penalty is the proper enforcement remedy to pursue.

Brief Description of the System

The general civil penalty system is designed to assign penalties for TSCA violations in accordance with the statutory requirements of Section 16. Penalties are determined in two stages: (1) Determination of a "gravity based penalty" (GBP), and (2) adjustments to the gravity based penalty.

To determine the gravity based penalty, the following factors affecting a violation's gravity are considered:

- The "nature" of the violation,
- The "extent" of environmental harm that could result from a given violation, and
- The "circumstances" of the violation.

These factors are incorporated on a matrix which allows determination of the appropriate gravity based penalty.

Once the gravity based penalty has been determined, upward or downward adjustments to the penalty amount are made in consideration of these other factors:

- Culpability,
- History of such violations,
- Ability to pay,
- Ability to continue in business, and
- Such other matters as justice may require.

Civil Penalty System and Its Application

This section describes in detail the general civil penalty system, how specific penalty guidances will be developed and applied, and the reasoning behind the development of the system.

The Penalty Factors

The Act requires the consideration of eight named factors in any penalty assessment, as well as "other factors as justice may require."

The first four factors—nature, circumstances, extent, and gravity—relate to the violation. Under the penalty system these four factors are charted on a matrix which yields the Gravity Based Penalty (GBP). This matrix is a *constant* throughout the penalty system. As will be seen below, however, the specific penalty guidelines will affect into which category along each axis of the matrix the violation will fall.

Once a GBP figure is reached, several adjustment factors are applied:

- An upward or downward adjustment may be made for particularly culpable or non-culpable conduct. An upward adjustment of up to 100% may be made where there is a history of such a violation.
- Two other adjustments (not specifically required by the Act, but authorized under the "as justice may require" language of § 16) are to recover cleanup costs paid by the United States, and to reduce or eliminate any financial or competitive advantage gained by the violator as a result of his failure to follow the Act, or its regulations. Other case-by-case adjustments may also be warranted under the "as justice may require" language.
- The final statutory adjustment factors are the violator's ability to pay and the effect on the violator's ability to continue to do business. For several reasons we have combined the concepts involved in these factors onto one "ability to pay" factor. This factor will often act as a limit on the amount of penalty assessed, even where other factors indicate a higher penalty is warranted.

Calculation of the Gravity Based Penalty

The gravity based penalty (GBP) is found on the following matrix:

significant chance that damage will result from the violation.

Levels 5 and 6 (Low): There is a *small likelihood* that damage will result from the violation.

The probability of harm, as assessed in evaluating circumstances, will always be based on the risk inherent in the violation *as it was committed*. In other words, a violation which presented a high probability of causing harm when it was committed (and/or was allowed to exist) must be classified as a "high probability" violation and *penalized* as such, even if through some fortuity no actual harm resulted in that particular case. Otherwise some who commit dangerous violations would be absolved. Similarly, when harm has actually resulted from a violation, the "circumstances" of the violation should be investigated to calculate what the probabilities were for harm occurring at the time of the violation. The theory is that violators should be penalized for the violative conduct, and the "good" or "bad" luck of whether or not the proscribed conduct *actually* caused harm should *not* be an overriding factor in penalty assessment. However, the responsibility for clean-up attaches without regard to the probability of harm (see Adjustment Factor 3, Government Clean-up Costs). As with "extent," the specific penalty guidelines are an essential tool in characterizing the circumstances of a violation.

Chemical control: With chemical control violations, probability is determined primarily by physical factors which affect the chance of improper exposure to the chemical's effects. For example, certain types of improper storage of PCBs are more likely than others to result in release of PCBs into the environment, and actual dumping of PCBs is virtually certain to do some harm. Criteria for assessing the probability of harm resulting from a violation will whenever possible be based on information developed in support of the chemical control rule.

Data-gathering and hazard assessment: A slightly different approach is taken to evaluate circumstances of data-gathering violations. The effect on the Agency's ability to implement or enforce the Act is the principal circumstance to be considered. Thus, the matrix levels for measuring circumstances (probability) for data-gathering and hazard assessment violations are as follows:

Levels 1 and 2 (High)—Violations which seriously impair the Agency's ability to monitor (data-gathering) or evaluate chemicals (hazard assessment).

Levels 3 and 4 (Medium)—Violations which impair the Agency's ability to monitor or evaluate chemicals in a less than critical way.

Levels 5 and 6 (Low)—Violations that impair the Agency's ability to monitor or evaluate chemicals in a less than important way.

Under these criteria, a violation of a Section 4 test standard (serious enough to make a study totally unreliable) has a higher probability of resulting in harm to the public through its effect on the Agency and would probably be Level 1 or 2, while late submission of a required report might be only a Level 5 or 6 violation.

Whenever possible, the specific penalty system will attempt to classify certain types of violations according to probability of damage. For example, certain types of violations of a disposal rule might always involve a high probability of damage. But other types of violations might involve such a large range of probability of harm that each case would have to be evaluated individually. In the latter case, the specific penalty guideline will include criteria to guide the evaluation of each violation. It is difficult to estimate the probability of harm presented by given situation, particularly in light of the many variables that make up "circumstances." However, "circumstances" can be evaluated for guideline purposes by comparing situations. For example, it is clear that, as a general rule, there is a greater probability of a falsified laboratory test leading to *actual damage*, than to have such damage resulting from minor errors in test report formatting.

The specific guidelines will also address the range of probabilities within each of the six "circumstances" classifications. For some violations, any probability of causing harm of over 10% might be in the "high" range, while other violations might be classified quite differently. One particular factor that may affect probability determinations is the length of time during which the violation presents a threat to health or the environment. Dumping PCBs in an unapproved landfill may not cause harm immediately but may inevitably cause harm as it leaches into nearby groundwater. But where only temporary improper *storage* is intended, and removal is planned, the probability of harm would be decreased accordingly.

4. *Gravity*. "Gravity" refers to the overall seriousness of the violation. As used in this penalty system, "gravity" is a dependent variable, i.e., the evaluation of "nature," "extent," and "circumstances" will yield a dollar figure on the matrix that determines the gravity based penalty.

The Adjustment Factors

The gravity based penalty reflects the seriousness of the violation's threat to health and environment. The Act also requires the Agency to consider certain factors in assessing the violator's conduct: Culpability, history of such violations, ability to pay, and ability to continue in business. In addition, the Act authorizes the Agency some discretion to consider "other factors as justice may require." Under this last authorization, two additional factors are considered and balanced: the cost of the violation to the government, and the benefits received by the violator due to his non-compliance. In order to compute penalty adjustments in a logical fashion, these adjustment factors are considered in the following sequence:

(1) Culpability;
(2) History;
(3) Cost to the government;
(4) Benefits from non-compliance; and
(5) Ability to pay/ability to continue in business.

1. *Culpability*. Since the law only requires the Agency to consider the culpability of the violator as an adjustment factor, the existence of a violation can be established without relying solely on this "blameworthiness" factor. In other words, the Agency may pursue a policy of strict liability in penalizing for a violation, though some allowance must be made based on the extent of the violator's culpability.[8] Under this penalty system, the gravity based penalty may be increased or decreased, or may remain the same depending on the violator's "culpability."

The two principal criteria for assessing culpability are (a) the violator's *knowledge* of the particular TSCA requirement, and (b) the degree of the violator's *control* over the violative condition.

[8] There are certain circumstances where an "act of God" or some other circumstance totally out of a company's control may not result in assessment of a violation (no legal liability). For example where PCBs are *properly* stored, and a plane crashes into the storage facility, causing a spill, there will probably be no violation.

related" if it is *similar* to the present violation. Each TSCA rule or regulation is considered a separate entity for "closely related" purposes. Thus the identical provision does *not* have to be violated both times for this higher adjustment to be made. For example, *two separate* unlawful disposals of PCBs may be "closely similar" if the PCBs were unlawfully dumped on the highways in the first instance, and in the second instance, PCBs of over 500 ppm were burned in a facility that did not comply with the PCB incinerator standards.

The specific guidelines will give some guidance on what violations are "closely similar" to others, and may set up a sliding scale of upward adjustment percentages rather than the 50 percent or 100 percent figures provided here.

3. *Government clean-up costs.* An adjustment factor not specified in the statute, but which the Agency feels "justice * * * require[s]," is reimbursement to the government for funds expended to investigate, clean-up, or otherwise mitigate the effects of a violation.

Generally, the clean-up expense of a violator is to be borne by the violator as a necessary cost of violation in addition to any civil penalty assessed. The government may seek a Federal district court injunction under §§ 7 or 17 to require the violator to clean-up, but there will almost certainly be situations where the government will have to clean-up the violation to quickly alleviate any hazards created. Where these latter situations happen, the government could probably file a non-statutory suit in Federal district court to recover funds which it expended, but it could even more easily assess these costs, when they are sufficiently low, in an administrative proceeding under § 16, particularly where a § 16, particularly where a § 16 action is going to be filed anyway.

The major limitation to seeking reimbursement of government investigatory and clean-up costs is the limit of $25,000 for each violation. However, since each day a violation continues constitutes a separate violation for which a $25,000 penalty may be assessed, in many instances clean-up and investigatory costs can be recovered where the violation is a continuing one. However, where a penalty would be in the area of $25,000 for the violation even before government investigatory and clean-up costs are considered, a § 16 action would be of little value in recovering these additional costs.

In adjusting the penalty, the government investigatory and clean-up cost should be added to the penalty calculated thus far. Where the total penalty under this method exceeds $25,000, the penalty should be cut back to $25,000. As will be discussed later, this type of situation lends itself to utilization of the continuing violation provisions of § 16.

It is important to note that consideration of government investigatory and clean-up costs in the penalty assessment is *not* intended to in any way affect the *right* of the government to *recover investigatory and clean-up costs* in a separate court action. A violator may argue that investigatory and clean-up costs have been abrogated by settlement of the penalty. Thus, if there is a reasonable possibility that the Agency will seek to recover such costs in a separate suit, this factor should *not* be utilized in assessing the § 16 penalty. Thus the investigatory and clean-up costs will *not* be included twice in calculating a penalty for a violation.

4. *Gains from noncompliance.* Another adjustment factor which "justice * * * require[s]" is that the violator not profit from its violative acts. TSCA's ability to prevent harm to public health and the environment is severely weakened whenever an economic incentive exists to violate the law. The penalty system attempts to eliminate, or at least reduce, these economic incentives, by adding to the base penalty an estimate of the economic gains obtained by the violator as a result of his noncompliance.

Among such economic gains would be money saved by not investing in new equipment, or by not following more costly operating procedures, or profits gained through the sale of illegal products. Removing such gains not only protects the public by deterring violations, but also prevents violators from gaining unfair competitive advantage over those who are complying with the law. For example, a company which manufactures a new chemical without submitting a premanufacture notice, pursuant to § 5, may gain a strong competitive advantage over another company who intends to manufacture the same chemical, but follows the § 5 procedure. The violator should be penalized at least to the extent of the economic gains achieved through his noncompliance. Any other result would put a premium on noncompliance.

The specific penalty guidelines should, where possible, indicate the types of economic gains from noncompliance, and include either standard estimates of such gains (e.g., the purchase price of required new equipment or facilities), or a procedure for estimating the gain. In cases where economic gains resulted from the company's failure to make required capital and operation and maintenance expenditures, those gains must be calculated in accordance with the Agency's September 27, 1978, "Technical Support Document" for computing civil penalties under the April 11, 1978, Civil Penalty Policy. The resulting economic savings figure must be reviewed by the Civil Penalty Policy Panel for consistency with that policy. In many instances, the GBP will be sufficiently high without adjustment for this factor. In other situations where there is no economic motive or benefit from noncompliance, or when the cost of cleaning up a violation outweighs any economic benefits received, this adjustment factor need not be applied.

5. *Ability to pay and ability to continue in business.* (a) *Usage of these terms.* The Act lists "ability to pay" and "ability to continue in business" as two adjustment factors, but for the purposes of the penalty system the distinctions between the two are so narrow and artificial that they are treated as one. In making this determination it was considered that "ability to pay" might be limited (in the extreme sense) to such indicators as the market value of the violator in liquidation, the profits accrued by the firm over a given time period, the net sales or income generated over a given time period, the value of cash and other liquid assets held by the firm, and the value of all liquid assets plus borrowable cash. Essentially, however, a firm can pay up to the point where it can no longer do business.[3] However, it is evident that Congress, by inserting these two factors into the Act, for *most* cases did not intend that TSCA civil penalties present so great a burden as to pose the threat of destroying, or even severely impairing, a firm's business.

Measuring a firm's ability to pay [4] a

[3] Technically, a firm would often be able to pay even if imposing a penalty would cause it to file for bankruptcy, since a reorganization might still leave the business in operation.

[4] Henceforth "ability to pay" will be used to include "ability to continue in business".

penalties may be assessed, there is a potential for very large penalties to be assessed in many situations. In some cases, such large penalties will be appropriate for continuing violations, while for others, such as late inventory reporting, assessing an additional penalty for each day of violation would yield a penalty assessment for greater than the violation merits. The specific penalty guidelines will discuss the types of continuing violations which should be assessed on a per-day basis. This discussion should indicate how criteria such as this will be applied, e.g., which continuing violations should never be penalized on a per-day basis, and which should usually or always be so penalized.

When a penalty is assessed on a per-day basis for a continuing violation, care must be taken to assure that the adjustment factors, "government clean up costs", and "economic benefits from non-compliance" are spread over the entire penalty, since these figures are calculated by looking at the entire violative situation. For example, if a continuing violation lasted four days and generated $40,000 in government clean-up costs, these $40,000 in costs should be added to the daily penalties (although each day would still be limited to a maximum $25,000 penalty).

Continuing violations are distinguished from multiple violations and violations which occur several separate times. These latter violations will generally be separately assessed.

Settlement

This guidance does not prescribe a specific percentage guideline for penalty reductions in the course of settlement. While, as a general rule, penalties may be altered in the course of settlement, there should always be some substantive reason given, which is to be incorporated in any settlement agreement and consent decree and final order for any penalty reduction. Other aspects of settlement are discussed in the context of particular penalty factors.

Designing and Applying a Specific Penalty Guidance

Designing a Specific Penalty Guidance

The specific penalty guidance, which will usually be developed as part of the enforcement strategy for a particular regulation, will provide the detailed information needed to fit particular violations in the overall civil penalty system. Each specific penalty guidance will address:

- To the extent possible, the types of violations that can occur;
- How to evaluate the nature (i.e., whether chemical control or information gathering) of a violation;
- How to determine and classify the extent of possible harm posed by a given violations;
- Special considerations in using the adjustment factors, particularly including means of estimating government clean-up costs and economic benefits from non-compliance;
- How and when to utilize the concept of multi-day violations;
- Any "other matters as justice may require" which may particularly apply to the given regulation; and
- Anything else necessary to effectuate enforcement of the regulation and the Act's penalty policy.

Applying a Specific Penalty Guidance

This section briefly summarizes the steps necessary to calculate a proposed penalty assessment.

Step 1: Utilizing the specific penalty guidances, determine the nature, extent, and circumstances of the violation.

Step 2: Find the appropriate extent and circumstances levels on the gravity based penalty matrix to determine the gravity based penalty (GBP).

Step 3: Determine the percentage adjustment for culpability, if any.

Step 4: Determine the percentage adjustment for history, if any.

Step 5: Add the adjustment percentages from steps 3 and 4 and apply the GBP. If the amount is in excess of $25,000, reduce the penalty to $25,000.

Step 6: Multiply the step 5 figure by the number of days of violation.

Step 7: Apply government cleanup costs adjustment, if applicable. Add to the step 6 figure.

Step 8: Apply economic gains from non-compliance adjustment, if applicable. Add to the step 6 figure.

Step 9: Make other adjustments "as justice may require."

Step 10: Issue formal complaint proposing the penalty.

Step 11: Discuss settlement any time before a final administrative law judge's decision (unless the complaint is not contested and becomes final as a matter of law). If applicable, determine violator's ability to pay. If appropriate, reduce penalty to amount violator can afford to pay. Penalties may be reduced as a condition of settlement.

Step 12: Issue Final order.

Civil Penalty Assessment Worksheet

Name of Respondent: _____
Address of Respondent: _____

(1) Complaint I.D. Number: _____
(2) Date Complaint Issued: _____
(3) Date Answer Received: _____
(4) Date Default Order Sent: _____
(5) Date Consent Agreement Signed: _____
(6) Date Final Order Sent: _____
(7) Date Remittance Received: _____

1. Gravity Based Penalty (GBP) from matrix. $____.
2. Percent increase or decrease for culpability. %____.
3. Percent increase for violation history. %____.
4. Add lines 2 and 3. %____.
5. Multiply GBP by percentage total on line 4. $____.
6. Add lines 1 and 5 (subtract line 5 from line 1 if negative percentage). $____.
7. Enter line 6 amount or $25,000, whichever is *less*. $____.
8. Multiply line 7 by the number of days of violation. $____.
9. Government clean-up costs, if any. $____.
10. Economic gains from non-compliance, if appropriate. $____.
11. Add lines 8 through 10. $____.
12. Total of other adjustments as justice may require. $____.
13. If line 12 represents a net *increase* to the penalty add line 12 to line 11. $____.

or

If line 12 represents a net *decease* to the penalty subtract line 12 from line 1. $____.

Note.—Line 13 should be the proposed penalty for a given violation. This procedure is repeated for each violation.

(b) 25 or more drained transformers, or 100 or more empty drums which once contained PCB fluid, or any other PCB solids having a volume of 750 cubic feet or more.

(B) *Significant:*

Liquids

(a) 220 gallons or more but less than 1100 gallons, or

(b) A contaiminated area of 150 square feet or greater, but less than 750 square feet, or

(c) 60 large capacitors or more, but less than 300 large capacitors.

Non-liquids

(a) 20 or more, but less than 100 fifty-five gallon drums containing contaminated soil, rags, debris or small capacitors.

(b) 5 or more, but less than 25, drained transformers, or more than 20, but less than 100, empty drums which once contained PCB fluids, or any other solid having a volume of 150 or more, but less than 750 cubic feet.

(C) *Minor:*

Liquids

(a) Less than 220 gallons, or

(b) A contaminated area of less than 150 square feet.

(c) Less than 60 large capacitors.

Non-liquids

(a) Less than 20 fifty-five gallon durms containing contaminated soil, rags, debris or small capacitors; or

(b) Less than 5 drained transformers, 20 fifty-five gallon drums which previously contained PCB fluids, or any other PCB solid having a volume of approximately 150 cubic feet.

Spills into water, food or feeds. Any PCB disposal which results in contamination of surface or ground water, or food or feeds is *always* major in extent.

Circumstances (Probability for Damage)

To determine which level on the circumstances axis to use, classify each violation of the regulation into one of these eight categories of violation:

(1) Disposal
(2) Marking
(3) Storage
(4) Manufacturing
(5) Processing
(6) Distribution
(7) Use
(8) Recordkeeping

After classifying the violations, determine the level on the circumstances axis from the following chart:

Table V

High range:
Level one:
(1) Improper disposal.
(2) Manufacturing

Level two:
(1) Processing.
(2) Distribution.
(3) Improper use.
Medium range:
Level three:
(1) Major storage violations.
(2) Major recordkeeping violations, disposal facilities.
(3) Major marking violations.
Level four:
(1) Major recordkeeping violations, use and storage facilities.
Low range:
Level five:
(1) Failure to date PCB items placed in storage.
(2) Minor storage violations.
(3) Minor marking violations.
Level six:
(1) Minor recordkeeping violations.
(2) Failure to use "No PCBs" lable as rquired.

Finding the GBP penalty. The extent and circumstances, as determined above, will determine a penalty amount on the GBP Matrix, Table I. This figure should be entered on line one (1) of the Civil Penalty Assessment Worksheet, (hereinafter, "worksheet") attached as Appendix A. The other penalty factors, such as culpability, ability to pay, and others, should be applied in the manner described in the TSCA Civil Penalty Policy.

Multiple Violations

Assess multiple violations against a single violator in any of the following circumstances:

(1) The violations fall into more than one violation category;
(2) The violations are in substantially different locations; or
(3) There is evidence that the violation has been committed on repeated occasions or has continued for more than one day.

If multiple violations are charged because of evidence of repeated or continuing conditions, the penalty will normally be calculated using the proportional penalty calculation, which appears in Table VI, below. However, the Agency can exercise its discretion either to charge for only one day, or to charge on a straight per day or per violation basis (GBP X number of days or violations), depending on factors such as substantial actual harm; the unusual nature of risk presented, or other unique circumstances.

Table VI

Proportional Penalty Calculation

Step 1: Find the total amount of PCB materials involved. If more than two times the major extent category, (more than 10,000 kg.) go to step 2. If less than two times the minimum amount in the major extent category (less than 10,000 kg.), use this amount to get a penalty from the GBP Matrix. Divide the penalty by the number of days [1] and enter on line one of the worksheet (Appendix A).

Step 2: Divide the amount from step one by the minimum amount in the major extent category (5000 kg). (Round fractions to one decimal place.)

Step 3: Multiply the amount form step two by the dollar amount from the GBP Martix major extent category. This is the total GBP charged.

Step 4: Divide the amount from step 3 by the number of days or violations involved. Enter this daily amount on line one of the worksheet (Appendix A).

Explanation of Policy

Nature

Since the purpose of the PCB regulation is to prevent further introduction of PCBs into the environment, this regulation is a chemical control regulation, as defined by the TSCA Civil Penalty Policy. Accordingly, most violations of this regulation are chemical control violations. The only exception would be violations of the recordkeeping requirements, which are control-associated data-gathering in nature. The Agency has taken this into account in designing a specific policy for PCB penalties. The definitions of the "extent" and "circumstances" categories below reflect the nature of these violations.

Extent

Because the PCB regulations are chemical control and control-associated data-gathering in nature, the greater the amount of PCB containing material (hereinafter, "PCB material") involved in a particular violation, the more likely it is that harm will result from the violation of the PCB rules. For this reason, the amount of PCB material involved in a particular incident will determine whether the major, significant, or minor extent category should be used in deriving a penalty from the GBP Matrix. Since the concentration of the PCB material involved in an incident will also affect the potential for harm, this factor must also be considered in determining which

[1] It should be noted that if the proportional penalty calculation is based on repeated violations, then the calculation at line 8 of the worksheet should represent the number of violations rather than the number of days.

extent is *always* major. If such spills are not quickly detected, they will result in direct human exposure. Even if the problem is detected before humans eat the contaminated food, it is likely that the cost of finding and destroying the contaminated products will be high. Thus, the Agency believes such incidents should always be considered major in extent.

Concentration Adjustments

The Agency recognizes that the concentration of the PCB materials is a relevant factor to consider in determining the amount of damage done from a violation of this regulation. Obviously, a spill of high concentration PCB's puts more contaminants into the environment than a spill of low concentration PCB's. Nonetheless, because PCB's can be toxic at very low concentrations, a spill of a large amount of low concentration PCB material could cause widespread harm. Thus, a system which would require the total weight of PCB material involved to be reduced in direct proportion to the concentration of that material would severely undermine the regulatory scheme.

The problem is illustrated by the following hypothetical: Someone spills 2,000,000 lbs. (or 909,090 kgs.) of fluid containing PCBs at a concentration of 1,000 parts per million (ppm). If, in calculating the penalty, the total weight of the fluid was reduced by the direct proportion of the concentration, less than 1,000 kilograms of PCBs would be involved for the purpose of calculating a penalty. As a result, this incident would be considered minor in extent, and the violator would not be fined more than $5,000. A penalty as small as this would not reflect the potential for harm to the environment and would create an enormous economic incentive for people to improperly dispose of PCBs at low concentrations, contrary to the intent of the regulations.

To account for the effect of the concentration of PCB liquids in determining the extent of a violation, and at the same time establish a system which does not severely hinder the agency's program, the following system has been developed. To determine the extent of probable damage for a particular violation, the total amount of PCB material involved in an incident should be reduced by the percentages which appear below:

(1) 50–499 ppm—70% reduction.
(2) 500–9,999 ppm—50% reduction.
(3) 10,000–99,999 ppm—20% reduction.
(4) 100,000 ppm or above—no reduction.

Thus, in the hypothetical quoted above, where 2,000,000 lbs. of PCB fluid at a concentration of 1,000 ppm was disposed of, the total amount would be reduced by 50%. Thus, the amount of fluids for determining the extent of the probable harm would be 1,000,000 lbs. or 454,545 kilograms.

Exceptions to Concentration Adjustment Calculation

These concentrations adjustment factors are not used in the following circumstances:

Waste oil. The use or waste oil that contains detectable concentrations of PCBs as a sealant, coating, or dust control agent, which is prohibited by 40 CFR 761.10(d), is one situation where the concentration reduction would not apply. The agency chose to prohibit these uses whenever any detectable level of PCBs were present because any such use of PCBs is likely to result in widespread environmental and health damage. Thus, allowing any reduction of the amount of PCBs used by virtue of low concentration would be contrary to the regulatory scheme.

Failure to test. The concentration reduction also does not apply where the violation is the failure to test liquid required to be tested; for example, the contents of a heat transfer system that has contained PCBs, 40 CFR 761.31(d)(1). In such cases, the risk created by the violation is that the fluid will be high concentration PCBs, and that this material will continue in use. Thus, the Agency feels that these persons should not obtain a fortuitous benefit when the liquid is finally tested and found to be of some lower concentration.

Alternative measure for solids. Finally, the concentration adjustment should not be used when the PCB material is measured by one of the alternative measures for solids which appear in Table IV. These alternative measures were chosen to maintain economic incentives for proper disposal. The cost of disposal of such materials is not dependent on the concentration of the PCBs in them. Accordingly, to allow adjustments for lower concentration might remove the economic incentives to dispose of these materials properly.

Circumstances

The other variable for determining a penalty from the GBP Matrix is the circumstances of the violation, also called the probability of damages. The TSCA Civil Penalty System established three ranges of probability of damages, high, medium, and low. Each of these ranges in turn has two different levels, for a total of six levels of probability of damages.

Explanation of Categories

Because there are many ways the PCB regulation can be violated, and because each of these violations could occur in so many different environmental contexts, it is virtually impossible to assess in advance all the possible factors that logically might have some impact on the probability of damages for a particular PCB violation. It would be even more difficult to try to determine, in advance, how all of these factors would interact in any particular situation. For this reason, the Agency believes it is appropriate to group the different types of PCB violations, assess the probability for harm resulting from each type of violation, and then assign that type of violation to one of the levels on the circumstances axis of the GBP Matrix.

For the purposes of assessing the probability of damages from a particular type of PCB violation, all the possible violations of the PCB rule can be grouped into eight categories, as follows:

(1) Disposal
(2) Marking
(3) Storage
(4) Manufacturing
(5) Processing
(6) Distributing
(7) Use
(8) Recordkeeping

Immediately below is a table assigning the different categories of PCB violations to the levels of probability of damages on the GBP Matrix. After the table, the reasons for the assignment of each category of violation to a level of probability of damages is explained.

High Range

Level one:

(1) Improper disposal of PCBs. This includes operating disposal facilities at conditions which do not meet the requirements of the regulations. It also includes any uncontrolled discharge of PCBs, e.g., Leakage from a stored container.

(2) Manufacturing of PCBs without an exemption or in violation of any condition of an exemption.

Level two:

(1) Processing PCBs without an exemption or in violation of any condition of an exemption.

(2) Distribution in commerce of PCBs without exemption or in violation of any condition of an exemption.

(3) Improper use of PCBs or using PCBs in violation of any condition of authorization. For example, this includes removing a coil from a PCB transformer for servicing, and the

violations, and failure to label with the "no PCBs" mark. In the case of minor recordkeeping violations, such violations, although they might make enforcement somewhat more difficult, should not seriously impair the Agency's enforcement efforts. The failure to label with the "no PCB" mark will only result in the disposal of certain items more carefully than necessary, thereby increasing the cost of compliance with the regulation.

The risk to the environment and human health in this case is minimal. Moveover, the Agency believes that there are already substantial economic incentives for manufacturers to comply with this labeling requirement, since their customers would probably be anxious to obtain equipment bearing such a label.

Using the GBP Matrix To Find a PCB Penalty

In order to determine a penalty for a specific PCB violation, the following steps should be followed:

Step 1: Determine which category of violation is involved (i.e., disposal, marking, storage, manufacturing, processing and distribution, use, or recordkeeping). If more than one violation category is involved, repeat the calculation in steps 2 through 8 for each violation category.

Step 2: Find which level the violation fits on the circumstances axis of the GBP Matrix.

Step 3: Calculate the total amount of PCBs involved in the violation. If there are several materials involved which fall into different concentration ranges, do a separate calculation for each concentration.

Step 4: Reduce the amounts in step 3 by the concentration adjustment. (Be sure to note the exceptions to this step).

Step 5: If different concentration ranges are present, add up the figures from step 4.

Step 6: Determine which extent category (major, significant, or minor) is applicable to the amount from step 5.

Step 7: Use the level from step 2 and the extent from step 6 to locate the penalty on the GBP Matrix (E.g., Level 3, significant is $10,000).

Step 8: Enter the amount from step 7 on line 1 of the Civil Penalty Assessment worksheet attached to the TSCA Civil Penalty Policy. Use that worksheet to complete the calculation of the penalty accounting for factors such as culpability, history of violations, etc.

Example

An inspection of X Company reveals that the following items are all stored for disposal in a room with an earthen floor:

2 transformers
3 capacitors

All three capacitors have name plates that show that they contain high concentration PCBs and have a volume of 30 gallons each. One transformer contains 300 gallons, and is tested at 1000 ppm. The second transformer contains 500 gallons, and is tested at 64% PCBs. It is leaking, and X's general foreman says that about 20 gallons have leaked. The equipment is marked, and X has records on this equipment. Assume the density of all fluids is 10 lbs/gal.

Step 1: Determine the categories of violation.

These are:
Disposal
Storage

Because there are two categories, a calculation is needed for each.

Disposal

Step 2: Find the "circumstances" level. This is level one, for disposal.

Step 3: Find the total amount involved. Total disposal: 20 gallons.

$$20 \text{ gal.} \times \frac{10 \text{ lbs}}{\text{gal.}} = 200 \text{ lbs.}$$

$$200 \text{ lbs.} \times \frac{.45 \text{ kg.}}{\text{lb}} = 90 \text{ kg.}$$

Step 4: Make concentration adjustment. No reduction for PCBs over 100,000 ppm, which is what was spilled.

Step 5: Not applicable.

Step 6: Determine extent category. 90 kg. = Minor

Step 7: Find penalty from matrix. Level one + Minor = $5,000

Step 8: Enter $5,000 on line 1 of the worksheet (Appendix A)

Storage

Step 2: Find "circumstances" level. Major storage (permeable floor) is level 3.

Step 3: Find total amount involved.

(a) over 100,000 ppm:

1 transformer @ 500 gal. 500
3 capacitors @ 30 gal. 90
590 gal.

$$590 \text{ gal.} \times 10 \frac{\text{lb.}}{\text{gal.}} \times .45 \frac{\text{kg.}}{\text{lb.}} =$$

2655 kg. over 100,000 ppm

(b) 500-10,000 ppm:

1 transformer @ 300 gal.

$$300 \text{ gal.} \times 10 \frac{\text{lb.}}{\text{gal.}} \times .45 \frac{\text{kg.}}{\text{lb.}} = 1350 \text{ kg.}$$

Step 4: Make concentration adjustment.

(a) over 100,000 ppm—no adjustment 2655 kg.

(b) 500-10,000 ppm—50% reduction 1350 kg. X .50 = 675 kg.

Step 5: Add figures from step 4.

2655 kg.
+ 675kg.
3330 kg.

Step 6: Determine extent category.

3330 kg. = Significant.

Step 7: Find the penalty from the matrix.

Level 3 + significant = $10,000.

Step 8: Enter $10,000 on line 1 of the worksheet (Appendix A).

Penalty Assessment for Multiple Violations

In the past, the Office of Enforcement has had numerous questions about which circumstances were appropriate for the assessment of multiple penalties. For the purpose of promoting consistency between regions and to be consistent with the penalty scheme set forth above, the following guidelines should be followed for assessing multiple penalties.

When Not To Assess Multiple Penalties

There are certain instances when separate counts should not be charged and multiple penalties not assessed. The first type of case where this is not appropriate is where a single situation presents violations of many portions of the regulation, which are all in the same violation category. For example, if X Company has a storage area which is unmarked, and which contains one unmarked PCB container, there are two infractions of the regulation: The failure to mark the container, and the failure to mark the storage area. However, only one violation should be charged: namely, a major marking violation. Both infractions present the same risk: that is, that no one will realize that PCBs are present. Accordingly, only one penalty is assessed. If the violation category is one like marking, which appears at several levels of the circumstances axis, the penalty should be assessed by looking at the most serious infraction committed.

Another situation in which only one count should be alleged and one penalty charged is where there are multiple infractions of the same regulatory requirement. For example, if five transformers are unmarked, only one penalty should be charged. Although five transformers present a greater risk than one transformer, this fact is accounted for by the larger extent category applicable to the situation with five unmarked transformers. Again, the nature of the risk presented is the same, so only one penalty is charged.

When Multiple Penalties Should Be Assessed

The most obvious situation for assessing multiple penalties is where the situation constitutes infractions of

5. Multiply GBP by percentage total on line 4 ..... $——
6. Add lines 1 and 5 (subtract line 6 from line 1 if negative percentage). $——
7. Enter line 6 amount or $25,000, whichever is less. $——
8. Multiply line 7 by the number of days of violation. $——
9. Government clean-up costs, if any ..... $——
10. Economic gains from non-compliance, if appropriate. $——
11. Add lines 8 through 10 ..... $——
12. Total of other adjustments as justice may require. $——
13. If line 12 represents a net increase to the penalty and line 12 is one 11.

or

If line 12 represents a net decrease to the penalty subtract line 12 from line 1. $——

*Line 13 should be the proposed penalty for a given violation. This procedure is repeated for each violation.